

```

>
BALLY BASIC
>
U 2 .
3 .
4 .
10 :RETURN ;NT=0
15 &(9)=107
20 CLEAR ;BC=157
25 FC=0
30 CX=-30;CY=16;PRINT "BIORHYTHMS"
40 PRINT ;CX=-39;FOR A=87TO 99;TV=@(A);NEXT A
50 PRINT ;CX=-57;FOR A=100TO 118;TV=@(A);NEXT A
55 PRINT
60 PRINT ;CX=-63;FOR A=119TO 140;TV=@(A);NEXT A
100 FOR A=1TO 2400
110 IF &(22)=16GOTO 10
120 IF &(23)=8GOTO 200
130 NEXT A
140 BC=1
150 GOTO 100
190 INPUT D,M,Y
192 IF D>0IF D<32IF M>0IF M<13RETURN
195 GOTO 190
200 CLEAR
205 BC=250;FC=7
210 CY=24;PRINT " WHAT IS YOUR BIRTHDATE"
220 PRINT "(DAY, MONTH, YEAR - ALL"
230 PRINT "DIGIT FORMAT PLEASE)?"
240 GOSUB 190
250 U=D;V=M;W=Y
255 BC=87;FC=0

```

finished - 1  
see table

```

260 CY=24;PRINT "WHAT IS TODAY'S DATE"
265 CY=0;FOR A=1TO 3;PRINT " ";NEXT A
270 CY=0;GOSUB 190
280 CX=-30;PRINT "THANK YOU!"
290 Q=Y-W
300 T=Qb365+Qc4
305 FOR A=0TO 1
306 IF A=1T=-T
310 FOR R=UTO 12
320 T=T+30
330 IF R#2IF R#4IF R#6IF R#9IF R#11 T=T+1
340 IF R=2 T=T-2
350 NEXT R
355 NEXT A
356 T=-T
360 T=T+D-U
370 P=Tc23;P=RM
380 E=Tc28;E=RM+24
390 I=Tc33;I=RM+53
400 CLEAR
410 BC=125
415 PRINT ;PRINT "YOU HAVE LIVED",#6,T," DAYS."
420 PRINT
430 PRINT "PHYSICAL INDEX:",#9,@(P)
440 X=@(P);GOSUB 1000
450 PRINT "EMOTIONAL INDEX:",#8,@(E)
470 X=@(E);GOSUB 1000
490 PRINT "INTELLECTUAL INDEX:",#4,@(I)
500 X=@(I);GOSUB 1000
510 FOR Z=1TO 3000;NEXT Z
520 CLEAR
525 CY=0
530 PRINT "CYCLES: THE NEXT 25 DAYS"
535 FOR A=1TO 1000;NEXT A;CLEAR
537 &(9)=71;&(0)=253;&(1)=253;&(2)=0;&(3)=0
539 &(9)=72
540 CX=-75;CY=@(P);PRINT "P",;GOSUB 750
550 CX=-68;CY=@(E);PRINT "E",;GOSUB 750
560 CX=-61;CY=@(I);PRINT "I",;GOSUB 750
570 LINE -50,43,0
580 LINE -50,-43,1
590 LINE -50,0,0
600 LINE 75,0,1
610 LINE -75,@(P),0
620 A=P;B=23;C=0
630 GOSUB 800
640 LINE -68,@(E),0
650 A=E;B=52;C=24
660 GOSUB 800
670 LINE -61,@(I),0
680 A=I;B=86;C=53
690 GOSUB 800
700 Y=-42
710 FOR X=-50TO 75STEP 5
720 BOX X,Y,1,3,3
730 NEXT X
740 GOTO 100
750 X=CX-7;Y=CY

```

File 3-7  
8-116

BIO RYTHMS  
R. Tietjens

Plots of  
20 title

```
760 BOX X,Y,7,9,3
770 RETURN
800 FOR X=-50 TO 75 STEP 5
810 Y=@(A)
820 LINE X,Y,1
830 A=A+1: IF A=B A=C
840 NEXT X
850 RETURN
1000 IF X>13 PRINT "GOOD"
1010 IF X>=-13 IF X<=13 PRINT "CRITICAL!!!!"
1020 IF X<-13 PRINT "BAD"
1030 RETURN
>
BALLY BASIC
>
```

```
>*PRINT ;LIST
2 .
4 .
6 .
10 :RETURN
20 PRINT " (C)BALLY CHESS BOARD"
30 PRINT " BY JOHN COLLINS
50 GOSUB 3000;GOSUB 2000
80 Q=1;GOSUB 1800;Q=-1
90 GOSUB 1800;GOTO 80
1000 M=-20+Kb10;N=-45+Lb10;IF (Lc2)b2#LGOTO 1030
1010 IF (Kc2)b2=KGOTO 1040
1020 BOX M,N,10,10,2;IF G=1IF Q=1BOX M,N,8,8,1
1025 RETURN
1030 IF (Kc2)b2=KGOTO 1020
1040 BOX M,N,10,10,1;IF G=1IF Q=-1BOX M,N,8,8,2
1045 RETURN
1800 I=0;CX=-75;CY=40;IF Q=1PRINT " WHITE";GOTO 1805
1802 PRINT " BLACK"
1805 I=I+1;PRINT " FROM";INPUT " RANK"R;INPUT " FILE"S
1807 IF R=0INPUT "LOC"S;INPUT "VAL",@(S);GOTO 1805
1810 T=S+(R-1)b8;P=@(T);IF (T<1)+(T>64)GOTO 1805
1820 IF @(T)<1IF Q=1GOTO 1805
1830 IF @(T)>-1IF Q=-1GOTO 1805
1840 I=I+1;PRINT " TO";INPUT " RANK"U;INPUT " FILE"V
1850 W=V+(U-1)b8;IF (W<1)+(W>64)GOTO 1840
1860 IF @(W)>0IF Q=1GOTO 1840
1870 IF @(W)<0IF Q=-1GOTO 1840
1880 @(T)=0;@(W)=P
1900 K=S;L=R;G=0;GOSUB 1000
1910 K=U;L=W;G=1;GOSUB 1000
1920 Z=2200+ABS(Pb10);GOSUB Z
1925 IF ABS(P)=6IF ABS(T-W)=2 PRINT "MOVE ROOK";CX=-75;CY=30;GOTO 1805
1930 IF I>26GOSUB 2000
1940 RETURN
2000 CLEAR ;BOX 25,0,86,86,3
2010 FOR I=1TO 64;M=-20+(I-1)c8)b8)b10
2020 N=-35+((I-1)c8)b10
2030 IF ((I-1)c8)=((I-1)c8)c2)b2GOTO 2040
2032 IF (Ic2)b2#1BOX M,N,10,10,3
2034 IF (Ic2)b2=1IF @(I)<0BOX M,N,8,8,3
2035 IF @(I)=0GOTO 2100
```

```
>*PRINT ;LIST
2 .
4 .
6 .
10 :RETURN
20 PRINT " (C)BALLY CHESS BOARD"
30 PRINT " BY JOHN COLLINS
50 GOSUB 3000;GOSUB 2000
80 Q=1;GOSUB 1800;Q=-1
90 GOSUB 1800;GOTO 80
1000 M=-20+Kb10;N=-45+Lb10;IF (Lc2)b2#LGOTO 1030
1010 IF (Kc2)b2=KGOTO 1040
1020 BOX M,N,10,10,2;IF G=1IF Q=1BOX M,N,8,8,1
1025 RETURN
1030 IF (Kc2)b2=KGOTO 1020
1040 BOX M,N,10,10,1;IF G=1IF Q=-1BOX M,N,8,8,2
1045 RETURN
1800 I=0;CX=-75;CY=40;IF Q=1PRINT " WHITE";GOTO 1805
1802 PRINT " BLACK"
1805 I=I+1;PRINT " FROM";INPUT " RANK"R;INPUT " FILE"S
1807 IF R=0INPUT "LOC"S;INPUT "VAL",@C;GOTO 1805
1810 T=S+(R-1)b8;P=@C;IF (T<1)+(T>64)GOTO 1805
1820 IF @C<1IF Q=1GOTO 1805
1830 IF @C>1IF Q=-1GOTO 1805
1840 I=I+1;PRINT " TO";INPUT " RANK"U;INPUT " FILE"V
1850 W=U+(U-1)b8;IF (W<1)+(W>64)GOTO 1840
1860 IF @C<1IF Q=1GOTO 1840
1870 IF @C>1IF Q=-1GOTO 1840
1880 @C=0;@C=W=P
1900 K=S;L=R;G=0;GOSUB 1000
1910 K=U;L=V;G=1;GOSUB 1000
1920 Z=2200+ABS(Pb10);GOSUB Z
1925 IF ABS(P)=6IF ABS(T-W)=2 PRINT "MOVE ROOK";CX=-75;CY=30;GOTO 1805
1930 IF I>2GOSUB 2000
1940 RETURN
2000 CLEAR ;BOX 25,0,86,86,3
2010 FOR I=1TO 64;M=-20+(I-1)c8)b8)b10
2020 N=-35+((I-1)c8)b10
2030 IF ((I-1)c8)=((I-1)c8)c2)b2GOTO 2040
2032 IF (Ic2)b2#1BOX M,N,10,10,3
2034 IF (Ic2)b2=1IF @C<1BOX M,N,8,8,3
2035 IF @C=0GOTO 2100
```

Robert Fabris  
3626 Morris Dr.  
San Jose, CA 95127

Matt Giwer  
3922 Millcreek Dr.  
Annandale, VA 22003

*closed*  
5/29/80

Dear Bob,

Better late than never.

On the enclosed tape you have

Morse Code--a learning program with only the alphabet but expansion to the rest is obvious.

LIFE IV--Thank you for running the ad without the listing although I had expected you to. <sup>run the listing</sup> The \$8, so far, isn't much but I can add to my resume a side business of selling software.

I Ching--a brute force approach, no subtlety, but it runs well.

Boxes, Spiral I, Spiral II--These are simply the most interesting automatic graphics I have come up with. Try some.

Psychic Power Test--A simple Rhine card ~~ix~~ type test. It could use a lot more sophistication, but what the hell it works.

~~Tix~~ There is about a count of ten between each program. They are all self explanatory except LIFE IV which takes a littel fooling with to figure out.

Feel free to run any ~~xxx~~ of them except LIFE IV since you ran the ad without the listing and my customers, both of them, would have every right to be upset.\* If you kept the first listing I sent you you could run that with the note that the better version is for ~~xxx~~ sale.

Your doing a great job. Artillery Duel is great. My son~~x~~ loves it (5 in July).

I also have a ~~x~~ stolen TIC-TAC-TOE game. Interested in running it? It can't be beaten so kids lose interest. Let me know if you want it as the graphics as still alphanumeric for use with a ~~print~~ printer. I'll make them at least acceptable but probably not too sophisticated.

Also I have <sup>Teaching</sup> started more games than I have finished. For example, a ~~learning~~ program for simple addition. Interested in these? Not great but ~~xxx~~ they can get people off the ground ~~ix~~ if they know some programming. The basid structure is ~~ix~~ instructive.

\* however, if it is in printing for the next issue, forget it.

Regards,

*Matt*  
M

Totally  
Incomprehensible  
Screen is black

```
y 1 BC=0
2 FC=7
3 NT=0
9 P=0;Q=0
10 CLEAR
11 Z=0;X=0;M=0;N=0;U=0;W=0
16 CLEAR
17 M=M+5;N=N+10;U=U+15;W=W+5
26 CLEAR
27 K=KN(1)c4
30 X=X+JX(1)b10
31 PRINT Z
40 P=P+RND (10)-RND (10)
41 IF P<-50IF P>50P=50
45 Q=Q+RND (6)-RND (6)
46 IF Q<-20IF Q>40Q=40
50 BOX P,Q,4,4,1
51 BOX P,Q,8,1,1
52 BOX P-5,Q,1,6,1
53 BOX P+4,Q,1,6,1
90 Y=-39
91 .BOB: SENTIMENTAL REASONS PROMPT ME TO SEND MY FIRST BALLY GAME.
92 .SORT OF MESSY & TROUBLESOME BUT NEEDS SOME SKILL TO WIN
93 .USE CNTL. #1
94 .I LEAVE THIS ONE TO THE IMPROVEMENT GENIUSES
100 BOX X,Y,30,10,3
101 BOX X,Y+5,5,5,3
102 BOX X-15,Y+10,1,10,3
103 BOX X+14,Y+10,1,10,3
135 BOX X,K,1,15,3
136 BOX X,K,15,1,3
137 PRINT " "
138 IF TR(1)=1GOSUB 150
140 GOTO 16
150 LINE X-15,Y+15,4
151 LINE X,K,3
156 NT=4;MU=989;NT=0
157 PRINT " "
160 LINE X+14,Y+15,4
161 LINE X,K,3
163 NT=7;MU=989;NT=0
165 PRINT " "
166 BOX X,K,5,5,3;NT=10;MU=1
167 BOX X,K,10,10,3;MU=2
168 BOX X,K,15,15,3;MU=3
169 BOX X,K,20,20,3;MU=4;NT=0
170 Z=Z+1
171 CX=-70;CY=40;PRINT Z
172 IF Z=10GOTO 997
```

```
175 IF Z=3GOSUB 2000
176 IF Z=5GOSUB 2000
177 IF Z=8GOSUB 2000
180 IF X>P-3IF X<P+3IF K>Q-3IF K<Q+3GOTO 1010
200 RETURN
997 LINE P,Q,4
998 LINE X,Y,3
999 NT=10
1000 BOX X,Y+10,5,5,3;PRINT "c100"
1001 BOX X,Y+10,10,10,3;PRINT "c300"
1002 BOX X,Y+10,15,15,3;PRINT "c500"
1003 BOX X,Y+15,30,30,3;PRINT "c700"
1004 BOX X,Y+25,40,40,3;PRINT "c800"
1005 PRINT "YOU ARE";PRINT "DESTROYED";PRINT "
1006 NT=0;RUN
1010 NT=10;PRINT "b1b3b5";NT=0
1018 BOX X,K,40,30,3
1020 NT=10;PRINT "CONGRATULATIONS"
1021 PRINT "ENEMY DESTROYED";NT=0
1025 BOX X,K,30,20,3
1030 NT=10;PRINT "888";NT=0
1040 RUN
2000 LINE P,Q,4
2010 LINE X,Y,3
2011 NT=50;MU=Z
2015 BOX X,Y,10,10,3
2016 NT=5
2020 PRINT "SHIELDS DAMAGED"
2025 PRINT "
2027 NT=0
2030 RETURN
>
```



>\*PRINT ;LIST

```
1 NT=0;M=0;CLEAR
2 BC=00;FC=15
3 G=0
7 BOX -69,0,1,76,1
8 BOX -3,0,1,76,1
9 BOX 3,0,1,76,1
10 BOX 69,0,1,76,1
11 BOX -35,38,66,1,1
12 BOX 37,38,66,1,1
13 BOX -35,-38,66,1,1
14 BOX 35,-38,66,1,1
20 GOTO 10000
30 .LIFE IV
31 .BELIEVE IT OR NOT BOB THIS IS THE VERSION I USE
998 M=M+1
999 CX=-75;CY=40;PRINT #1,M
1000 FOR X=-66TO -66STEP 2
1009 GOSUB 4010
1165 NEXT X
1998 M=M+1
1999 CX=-3;CY=40;PRINT #1,M
2000 FOR X=6TO 66STEP 2
2009 GOSUB 4010
2165 NEXT X
3000 GOTO 998
4010 FOR Y=-35TO 35STEP 2
4015 IF TR(1)G=1
4016 IF TR(2)G=0
4017 IF TR(2)GOTO 6000
4020 IF G=1GOTO 4026
4025 IF Y=-35GOTO 7000
4026 A=0
4028 BOX X-1,Y,1,1,3
4035 D=X-2;B=X+2;E=Y-2;F=Y+2
4045 A=PX(D,F)+PX(X,F)+PX(B,F)+PX(D,Y)+PX(B,Y)+PX(D,E)+PX(X,E)+PX(B,E)
4105 BOX X-1,Y,1,1,3
4200 IF X<0 D=X+70
4210 IF X>0 D=X-70
4220 IF PX(X,Y) IF (A#2)+(A#3)=2 BOX D,Y,1,1,2
4230 IF PX(X,Y) IF (A=2)+(A=3)=1 BOX D,Y,1,1,1
4240 IF PX(X,Y)=0 IF A=3 BOX D,Y,1,1,1
4250 IF PX(X,Y)=0 IF A#3 BOX D,Y,1,1,2
4260 NEXT Y
4270 Y=-35
4275 BOX X-1,Y,1,1,1
4280 BOX X-1,Y,1,1,2
4300 RETURN
6000 FOR K=1TO 8
6010 NEXT K
6020 GOTO 4270
```

*Life 4  
How?  
Do not  
PRINT*

```
7000 H=X-2;J=X+2
7001 Q=X-1
7002 FOR S=-35TO 35STEP 2
7005 BOX Q,Y,1,1,3
7010 IF (PX(J,S))+(PX(H,S))+(PX(X,S+2))*0GOTO 9000
7017 BOX Q,Y,1,1,3
7019 NEXT S
7020 GOTO 4280
9000 Y=S-2;GOTO 4026
10000 X=-36;Y=1
10005 BOX X,Y,1,1,3
10006 BOX X,Y,1,1,3
10010 IF TR(1)BOX X,Y,1,1,1
10011 IF TR(1)BOX X+70,Y,1,1,1
10015 IF TR(2)GOTO 998
10020 X=X+2bJX(1)
10030 Y=Y+2bJY(1)
10040 GOTO 10005
>
```

*Quasi*

```

0123456789;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~0
0123456789;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~0
0123456789;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~0
= 2 .DELETE 150, 160 FOR MANUAL USE
3 .TR(1) GIVES A NEW LETTER
4 .TR(2) REPEATS LAST LETTER
81 CLEAR
82 NT=0
83 M=10
84 N=10000
100 CX=-78;CY=42
105 NT=3
150 FOR G=1TO 1000;NEXT G
160 GOTO 300
200 IF TR(1)+TR(2)=0GOTO 100
250 IF TR(1)GOTO 300
260 IF TR(2)GOTO 400
300 CLEAR
305 GOSUB 900
310 B=1000+A
320 GOSUB B
325 FOR I=1TO 20;NEXT I
330 GOTO 100
400 CLEAR
405 GOSUB B
410 GOTO 100
900 A=RND (25)
910 RETURN
1001 PRINT M;PRINT N;NT=0;PRINT "A";RETURN
1002 PRINT N;PRINT M;PRINT M;PRINT M;NT=0;PRINT "B";RETURN
1003 PRINT N;PRINT M;PRINT N;PRINT M;NT=0;PRINT "C";RETURN
1004 PRINT N;PRINT M;PRINT M;NT=0;PRINT "D";RETURN
1005 PRINT M;NT=0;PRINT "E";RETURN
1006 PRINT M;PRINT M;PRINT N;PRINT M;NT=0;PRINT "F";RETURN
1007 PRINT N;PRINT N;PRINT M;NT=0;PRINT "G";RETURN
1008 PRINT M;PRINT M;PRINT M;PRINT M;NT=0;PRINT "H";RETURN
1009 PRINT M;PRINT M;NT=0;PRINT "I";RETURN
1010 PRINT M;PRINT N;PRINT N;PRINT N;NT=0;PRINT "J";RETURN
1011 PRINT N;PRINT M;PRINT N;NT=0;PRINT "K";RETURN
1012 PRINT M;PRINT N;PRINT M;PRINT M;NT=0;PRINT "L";RETURN
1013 PRINT N;PRINT N;NT=0;PRINT "M";RETURN
1014 PRINT N;PRINT M;NT=0;PRINT "N";RETURN
1015 PRINT N;PRINT N;PRINT N;NT=0;PRINT "O";RETURN
1016 PRINT M;PRINT N;NT=0;PRINT "P";RETURN
1017 PRINT N;PRINT N;PRINT M;PRINT N;NT=0;PRINT "Q";RETURN
1018 PRINT N;PRINT N;PRINT M;NT=0;PRINT "R";RETURN
1019 PRINT M;PRINT M;PRINT M;NT=0;PRINT "S";RETURN
1020 PRINT N;NT=0;PRINT "T";RETURN
1021 PRINT M;PRINT M;PRINT N;NT=0;PRINT "U";RETURN
1022 PRINT M;PRINT M;PRINT M;PRINT N;NT=0;PRINT "V";RETURN
1023 PRINT M;PRINT N;PRINT N;NT=0;PRINT "W";RETURN
1024 PRINT N;PRINT M;PRINT M;PRINT N;NT=0;PRINT "X";RETURN
1025 PRINT N;PRINT M;PRINT N;PRINT N;NT=0;PRINT "Y";RETURN
1026 PRINT N;PRINT N;PRINT M;PRINT M;NT=0;PRINT "Z";RETURN
>

```

by Matt Givner

Morse  
Code

Random

or

on  
demand

but still  
random

BALLY BASIC

>

q 1 .  
2 .  
3 .  
4 .PSYCHIC TEST  
5 .BY MATT GIWER  
6 NT=0;CLEAR  
7 BC=56;FC=100  
8 M=0;N=0  
9 PRINT "USE JX(1) TO MOVE INDICATOR TO YOUR CHOICE  
10 PRINT "PULL TRIGGER  
20 FOR A=1TO 1500;NEXT A

30 CLEAR  
90 CY=25  
95 X=-45

```

Q 1 NT=0;CLEAR
2 BC=56
3 FC=100
5 M=0;N=0
6 .TEST YOUR PSYCHIC POWER
7 .MOVE JX(1), PULL TR(1)
90 CY=25
95 X=-45
100 GOSUB 1000
105 X=-15
110 GOSUB 2000
115 X=15
120 GOSUB 3000
125 X=45
130 GOSUB 4000
300 S=S+JX(1)*30
310 IF S<-45 S=-45
320 IF S>45 S=45
330 CX=S;CY=0;PRINT "↑
331 CX=S;CY=0;PRINT "

```

```

335 IF TR(1) GOTO 400
340 GOTO 300
400 P=RND (4)
401 X=-30;CY=-20
402 GOSUB P*1000
410 IF I=S M=M+1
420 N=N+1
425 CX=30;CY=-20
430 PRINT #1,M,"/",#1,N,
450 IF N=100GOTO 600
500 GOTO 300
600 CX=-75;CY=-35;PRINT #1,"CHANCE=",N*4,
950 STOP
1000 CX=X
1020 BOX CX,CY,20,20,2
1023 BOX CX,CY,20,20,1
1025 BOX CX,CY,16,16,2
1030 I=-45
1900 RETURN
2000 CX=X
2010 BOX CX,CY,20,20,2
2020 BOX CX,CY,20,2,1
2025 BOX CX,CY,2,20,1
2030 I=-15
2900 RETURN
3000 CX=X
3010 BOX CX,CY,20,20,2
3020 BOX CX,CY+7,20,2,1
3021 BOX CX,CY,20,2,1
3022 BOX CX,CY-7,20,2,1
3030 I=15
3900 RETURN
4000 CX=X
4010 BOX CX,CY,20,20,2
4020 BOX CX+7,CY,2,20,1
4021 BOX CX,CY,2,20,1
4022 BOX CX-7,CY,2,20,1
4030 I=45
4900 RETURN
>

```

```

~ .PRIME NUMBERS
2 .150b70 DISPLAY
3 .BOX X=2 IGNORES EVENS
5 BC=10
6 FC=22
7 NT=0
8 I=1
10 CLEAR
100 .LEFT # IS THE PRIME
110 .CENTER # IS THE NUMBER OF THE PRIME
300 FOR M=5TO 15000STEP 2
310 FOR K=3TO Mc2STEP 2
320 IF (McK)bK=MNEXT M
330 NEXT K
335 I=I+1
340 CX=-75;CY=35;PRINT #4,M
345 CX=0;CY=35;PRINT #4,I
400 S=Mc150
410 Y=-35+S
420 T=M-150bS
430 X=-75+T
440 BOX X,Y,2,1,1
450 NEXT M

```

>

Income Tax  
By Hugh Fittler

This program figures the taxable income based on 1040 long form, schedule TC (if needed), and schedule A (itemized deductions ).

After entering all required data it will compute the taxable income and will instruct you to look up the tax in the tax tables or the tax rate schedule. If the latter is used, there is a special subroutine that will calculate the tax. When the special symbols appear enter the values from the appropriate line of the appropriate tax rate schedule as follows:

Example:

Over-	But not over-	Of the amount over-
\$20,200	\$24,600	\$3,273 + 28%

Symbol "\$+" means enter 3273

Symbol "%" means enter 28

Symbol "of amount over" means enter 20200

Because of integer basic, the tax amount might be in error as much as \$10 due to rounding errors, so don't expect exact results. Also remember Tiny Basic has a maximum of 32767 so if your income is over this amount you can't use this program.

there are a number of items that had to be left out due to memory limitations. People with different situations might want to substitute other options. It is useful, however, for estimating tax various ways for quick comparisons.

The program uses all the memory so conserve bytes in every possible way. One useful way is to use the command form of a word instead of spelling the word out; like the "for" in line 2001.

The program is based on the 1979 tax laws for deductions etc. so it will have to be modified slightly for future years. However, this is easily done as the program is fairly straight forward.

May 8, 1980  
628 W. Utica St  
 Sellersburg, IN 47172

812  
219

216-1634

Sellerburg

The Arcadian

Dear Bob,

Here are a couple of programs that I wrote.  
They were written by me alone and are original.  
You may publish them in the Arcadian if you  
like. They are Income Tax and Graphic Assembler.  
I think Bally awareness will find Graphic Assembler  
particularly useful.

Sincerely  
Hugh Fitter



INCOME TAX  
HUGH FITLER

```
0123456789;<=>?@ABCDEFGHIJKLMNQRSTUUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz;:~0
0123456789;<=>?@ABCDEFGHIJKLMNQRSTUUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz 1.
2 .INCOME TAX
3 .BY HUGH FITLER
1500 :RETURN
1510 NT=0;PRINT
2000 PRINT "INPUT FILING STATUS";PRINT
2001 PRINT "1 FOR SINGLE";PRINT "2 FOR MARRIED-JNT";PRINT "3 FOR MARRIED-SEP";PR
INT "4 FOR HEAD OF HOUSEHOLD
2002 INPUT "5 FOR WIDOW" T
2005 IF (T<1)-(T>5) CLEAR ;PRINT ;GOTO 2000
2006 PRINT
2010 INPUT "# EXEMPT.(32 MAX.)" S
2020 INPUT "W-2 WAGES" C
2030 INPUT "INTEREST INCOME" E
2035 H=0
2040 INPUT "DIVIDEND INC." F;IF F<=0 F=0;GOTO 2050
2043 G=F;IF G>100 G=100
2046 H=F-G
2050 INPUT "ST. INC. TAX REF'D" F
2060 INPUT "BUS. INC. SCH. C" G
2070 INPUT "CAP. GAIN OR LOSS" U
2080 INPUT "SUPL. INC. SCH. E" J
2090 INPUT "OTHER INC." L
2100 M=C+E+H+F+G+U+J+L
2105 PRINT "TOT. INC.", M
2110 INPUT "MOV. EXP. #3903" C
2120 INPUT "EMP. BUS. EXP. #2106" E
2130 D=M-C-E;PRINT "ADJ. GROSS INC.", D
2140 PRINT "ITEMIZE? Y OR N
2150 IF KP="N" GOTO 2900
2180 PRINT
2190 PRINT "MEDICAL
2200 PRINT "INPUT TOTAL HOSP. INS. PREM.";INPUT "A
2210 B=A*2;IF B>150 B=150
2220 INPUT "DRUGS" C
2230 F=C-(D*100);IF F<0 F=0
2240 G=A-B
2250 INPUT "DR. & DENTIST" H
2260 INPUT "HOSP." K
2270 INPUT "OTHER" J
2280 M=(F+G+H+K+J)-(D*100*3);IF M<0 M=0
2285 Y=B+M;PRINT "TOTAL MEDICAL", Y
2295 PRINT
2300 PRINT "TAXES
2305 INPUT "ST. INC." A
2310 INPUT "REAL EST." B
2330 INPUT "SALES" E
2340 INPUT "PERS. PROP" F
2350 INPUT "OTHER" G
2360 A=A+B+E+F+G;PRINT "TOTAL TAXES", A
2362 PRINT
2365 PRINT "INTEREST
2370 INPUT "MORTGAGE" B
2380 INPUT "CREDIT" C
```

```

2390 INPUT "OTHER"E
2400 B=B+C+E;PRINT "TOTAL INTEREST",B
2405 PRINT
2410 INPUT "CONTRIBUT."C
2420 K=0;PRINT
2430 PRINT "CASUALTY LOSS? Y OR N";IF KP="Y"GOSUB 4000
2435 PRINT
2440 INPUT "MISC.DEDUCT"F
2450 R=A+B+C+F+K+Y;PRINT "TOT.DEDUCT.",R
2460 GOSUB 4000+(Tb10)
2470 U=R-P;IF U<0U=0
2480 PRINT "EXCESS ITEMIZED DEDUCT.",U
2490 IF KPGOTO 2910
2900 U=0
2910 A=D-U
2915 CLEAR ;PRINT
2920 GOTO 5000
2925 PRINT
4000 INPUT "LOSS BEFORE INS.REIMB."G
4010 INPUT "INS.REIMB."H
4020 I=G-H;IF I<0I=0
4025 J=I;IF I>100J=100
4030 K=I-J;IF K<0K=0
4035 PRINT "CAS.LOSS DEDUCT.",K
4040 RETURN
4810 P=2300;RETURN
4820 P=3400;RETURN
4830 P=1700;RETURN
4840 P=2300;RETURN
4850 P=3400;RETURN
5000 IF (T=2)-(A<=20000)GOTO 5200
5020 A=A-(1000bS);IF A<0A=0
5030 GOSUB 8000
5040 GOSUB 8500
5050 GOSUB 7000
5060 GOSUB 6000;GOTO 5410
5200 GOSUB 8000
5210 PRINT "WITH",#2,S," EXEMPT.
5220 PRINT "FROM TAX TABLE
5230 GOSUB 7000
5400 PRINT ;INPUT "INPUT TAX:"X
5410 INPUT "ENERGY CREDITS"Y
5420 B=X-Y;IF B<0B=0
5430 INPUT "OTHER TAXES OWED"Z
5440 PRINT "TAX:",B+Z
5450 STOP
6000 PRINT ;GOSUB 8500;PRINT "INPUT :
6010 INPUT "$+"B
6020 INPUT "%*C
6030 INPUT "OF AMT. OVER"D
6040 X=((A-D)c100bC)+B
6052 RETURN
7000 PRINT "USING FILING STATUS",#2,T,".";RETURN
8000 PRINT "FIND TAX ON",A;RETURN
8500 PRINT "FROM TAX RATE SCHEDULE";RETURN
>xyz(:)~0123456789;(<=>?@ABCDEFGHIJKLMNopqrstuVwxyz\1_`abcdefghijklmnopqrstuvwxyz
0123456789;(<=>?@ABCDEFGHIJKLMNopqrstuVwxyz\1_`abcdefghijklmnopqrstuvwxyz(:)~0

```

LETTER  
MATCH  
B. WISEMAN

Fix

So SD

```
5 .LETTER MATCH
6 .BY BOB WISEMAN
10 CLEAR ;G=1
20 INPUT "*" OF PLAYERS?" A
22 BC=15;FC=99
25 C=A;FOR A=50TO 55;@(A)=0;NEXT A
30 CLEAR ;A=1
40 FOR Y=0TO 24
50 @(Y)=Y+1;@(Y+25)=Y+1
55 IF Y<12G=1
60 MU=Y+30;Z=Yc10;GOSUB 800
70 MU=Z+RM;Z=(Y+25)c10;GOSUB 800
80 NEXT Y
90 FOR Y=0TO 49
```

Fix

So So

```

100 Z=RND (50)-1;D=@(Y);@(Y)=@(Z);@(Z)=D
110 NEXT Y;F=50;A=0
120 A=A+1;IF A>C A=1
132 GOSUB 810;PRINT "PLAYER",#2,A,"'S TURN
140 GOSUB 500;D=X
150 GOSUB 500;E=X
155 IF E=DGOSUB 810;PRINT "CHOOSE AGAIN
160 IF @(D)=@(E)GOTO 200
170 G=1;Z=Dc10;GOSUB 800
180 Z=Ecl0;GOSUB 800
185 GOSUB 810;PRINT "NOT A MATCH
190 FOR X=1TO 30;MU="*";NEXT X
195 GOTO 120
200 F=F-2
210 @(D)=0;@(E)=0;G=0
220 Z=Dcl0;GOSUB 800
230 Z=Ecl0;GOSUB 800
240 @(50+A)=@(50+A)+2
250 GOSUB 810;PRINT "YOU MADE A MATCH
260 IF F=0GOTO 900
270 FOR X=1TO 20;MU="T";NEXT X
280 GOTO 140
500 IF TR(A)=1X=B;GOTO 600
510 I=Bcl0;J=-38+8bRM;K=16-Ib8
520 BOX J,K,4,4,3;BOX J,K,4,4,3
530 L=JX(A);M=JY(A)b10
532 IF L=0IF M=00=0;GOTO 500
533 IF 0=1GOTO 500
540 B=B+L-M;0=1
550 IF B<0 B=0
560 IF B>49 B=49
570 GOTO 500
600 IF @(X)=0MU="M";GOTO 500
610 Z=Xcl0;G=0;GOSUB 800
620 I=Xcl0;CX=-38+8bRM;CY=16-Ib8
625 TU=@(X)+64
630 RETURN
800 IF G=0 G=2
805 BOX -38+8bRM,16-Zb8,7,7,G
808 RETURN
810 CX=-75;CY=40;RETURN
900 FOR H=1TO 50;NEXT H
910 CLEAR
920 FOR A=1TO C
930 PRINT " PLAYER #",#2,A," SCORED",#3,@(50+A)
940 NEXT A
950 IF TR(1)=1GOTO 10
960 GOTO 950
970 LIST 600,1

```

(2)

```

620 A=115+H; B=116; @(B-1)=48; @(B-2)=48; GOSUB 1000
630 PRINT; PRINT "PER MONTH
640 PRINT
  710 INPUT "1 = ANOTHER; 2 = SCHEDULE" S
  740 IF S=2 PRINT; PRINT "MONTH PRIN. INT. BALANCE"; PRINT; GOTO 300
760 GOTO 4
  1000 Z=1; FOR K=A TO B STEP -1
  1010 IF @(K)="0" IF Z GOTO 1030
  1020 Z=0; TV=@(K)
  1030 NEXT K
  1040 TV=46; TV=@(B-1); TV=@(B-2)
  1050 RETURN
  1100 PRINT #1, M;; CX=-60; PRINT;; A=210; B=206; GOSUB 1000
  1110 CX=-18; PRINT;; A=173; B=170; GOSUB 1000
  1120 CX=23; PRINT;; A=158; B=152; GOSUB 1000
  1130 PRINT; RETURN
  1200 BC=178; PRINT; PRINT "LAST PAYMENT IS $ ";
  1210 @(203)=0; $+@(118), @(162), @(198)
  1220 A=210; B=206; GOSUB 1000
  1230 PRINT; PRINT; PRINT "PRESS 'GO' "; K=KP; GOTO 4
  1300 $+@(144), @(234), @(198)
  1310 $-@(144), @(144), @(144); GOTO 480

```

# LOAN PROGRAM BREAKDOWN — D. BRAMMER

```

1-4  PRE-ABLE
6    TITLE
7    CLEAR STRINGS
10-210 REQUEST + STORE LOAN DATA
300   DUPLICATE LOAN AMOUNT
400-470 CALCULATE COMPOUND INTEREST
500-630 TOTAL INTEREST STATEMENT
640-740 SET UP PAYMENT SCHEDULE FORMAT
1000-1050 CALCULATOR PRINTOUT ROUTINE
1100-1230 SCHEDULE PRINTOUT ROUTINE
1300-1310 CONDITION STRINGS FOR FINAL PAYMENT STATEMENT

```

D. Branner

this is sort  
of backwards,  
knowing  
no. payment +  
get the term

```

1 .MIN. SZ=502
2 .LOANS
3 :RETURN ;NT=1
4 CLEAR ;PRINT ;S=0;BC=250;FC=7
5 PRINT "      $$$ LOANS $$$";PRINT
6 FOR A=0 TO 251;@(A)=0;MU=A;NEXT A
10 INPUT "# OF DIGITS IN LOAN AMOUNT (MAX 5)"*N
20 PRINT "LOAN AMOUNT? $",
30 A=N+7;B=8;GOSUB 40;GOTO 100
40 FOR A=ATO BSTEP -1;@(A)=KP;TV=@(A);NEXT A;PRINT ;RETURN
100 PRINT "INT. RATE (TO 4 PLACES)? % . ",
110 A=61;B=58;GOSUB 40
150 @(B1)=1;@(B0)=2
160 $c@(54),@(72),@(90)
170 INPUT "# OF DIGITS IN PAYMENT ?"H
180 PRINT "MONTHLY PAYMENT ? $ ",
210 A=115+H;B=116;GOSUB 40
240 PRINT ;PRINT "COMPUTING";PRINT
300 $+@(0),@(125),@(144)
310 E=0
400 FOR M=1 TO 900
405 IF S#2MU=M
410 $b@(144),@(90),@(162)
420 $+@(180),@(162),@(180)
425 IF EGOTO 1300
430 $-@(108),@(162),@(198)
440 $-@(144),@(198),@(144)
450 $-@(144),@(108),@(216)
455 IF S=2GOSUB 1100
460 IF @(233)=56E=1;GOTO 410
470 NEXT M
480 BC=80;M=M+1
485 IF S=2GOSUB 1100
495 IF S=2GOTO 1200
500 PRINT ;PRINT "TOTAL INT. IS $ ",
520 A=193;B=188;GOSUB 1000;PRINT
600 PRINT "REPAYMENT IS OVER",#3,Mc12," YEARS
610 PRINT "&",&3,RM,"MONTHS, AT $ ",
630 PRINT ;PRINT "PER MONTH
640 PRINT
710 INPUT " 1 = ANOTHER; 2 = SCHEDULE" S
740 IF S=2PRINT ;PRINT "MONTH PRIN. INT. BALANCE";PRINT ;GOTO 300
760 GOTO 4
1000 Z=1;FOR K=ATO BSTEP -1
1010 IF @(K)="0"IF ZGOTO 1030
1020 Z=0;TV=@(K)
1030 NEXT K
1040 TV=46;TV=@(B-1);TV=@(B-2)
1050 RETURN
1100 PRINT #1,M,CX=-60;PRINT ,;A=210;B=206;GOSUB 1000
1110 CX=-18;PRINT ,;A=173;B=170;GOSUB 1000
1120 CX=23;PRINT ,;A=158;B=152;GOSUB 1000
1130 PRINT ;RETURN
1200 BC=178;PRINT ;PRINT "LAST PAYMENT IS $ ",
1210 @(203)=0;$+@(198),@(162),@(198)
1220 A=210;B=206;GOSUB 1000
1230 PRINT ;PRINT ;PRINT "PRESS 'GO' ";K=KP;GOTO 4
1300 $+@(144),@(234),@(198)

```

Err:

for  
←

## LOAN PAYMENTS

NO SPARES -

REQUIRES MIN. SZ 502 SPACE

1. MIN. SZ = 502  
2. LOANS  
3: RETURN ; NT = 1  
4 CLEAR ; PRINT ; S = 0 ; BC = 250 ; FC = 7  
6 PRINT " \$\$\$ LOANS \$\$\$ "; PRINT  
7 FOR A = 0 TO 251 ; @ (A) = 0 ; MU = A ; NEXT A  
10 INPUT " # OF DIGITS IN LOAN AMOUNT (MAX 5) " N  
20 PRINT " LOAN AMOUNT ? \$ ",  
30 A = 7 + N ; B = 8 ; GOSUB 40 ; GOTO 100  
40 FOR A = A TO B STEP -1 ; @ (A) = KP ; TV = @ (A) ; NEXT A ; PRINT ; RETURN  
100 PRINT " INT. RATE (TO 4 PLACES) ? % . ",  
110 A = 61 ; B = 58 ; GOSUB 40  
150 @ (81) = 1 ; @ (80) = 2  
160 \$ ÷ @ (54) , @ (72) , @ (90)  
170 INPUT " # OF DIGITS IN PAYMENT ? " H  
180 PRINT " MONTHLY PAYMENT ? \$ ",  
210 A = 115 + H ; B = 116 ; GOSUB 40  
240 PRINT ; PRINT " COMPUTING " ; PRINT  
300 \$ + @ (0) , @ (126) , @ (144)  
310 E = 0  
400 FOR M = 1 TO 900  
405 IF S # 2 MU = M  
410 \$ X @ (144) , @ (90) , @ (162)  
420 \$ + @ (180) , @ (162) , @ (180)  
425 IF E GOTO 1300  
430 \$ - @ (108) , @ (162) , @ (198)  
440 \$ - @ (144) , @ (198) , @ (144)  
450 \$ - @ (144) , @ (108) , @ (216)  
455 IF S = 2 GOSUB 1100  
460 IF @ (233) = 56 E = 1 ; GOTO 410  
470 NEXT M  
480 BC = 80 ; M = M + 1  
489 IF S = 2 GOSUB 1100  
495 IF S = 2 GOTO 1200  
500 PRINT ; PRINT " TOTAL INT. IS \$ ",  
520 A = 193 ; B = 198 ; GOSUB 1000 ; PRINT  
600 PRINT " REPAYMENT IS OVER " , #3 , M ÷ 12 , " YEARS  
610 PRINT " & " , #3 , RM , " MONTHS , AT \$ " ,

המחיר המלא של המוצר: 100 ש"ח



```

1 .MUSIC
2 .C.N.MORIMOTO
3 .
4 :RETURN
5 GOSUB 10
6 IF &(23)RUN
7 IF &(21)STOP
8 GOTO 6
9 .STAR WARS
10 CLEAR ;BC=0;FC=251;NT=0
20 &(0)=0;&(1)=0;&(2)=0;&(9)=53;&(10)=0
30 CX=-30;CY=0;PRINT "STAR WARS",
40 FOR A=0TO 100;FOR B=1TO 70;NEXT B;&(10)=A;NEXT A
50 FOR A=25TO 11STEP -1;FOR B=1TO 50;NEXT B;&(9)=A;NEXT A
60 FC=4
70 FOR A=11TO 25;FOR B=1TO 100;NEXT B;&(9)=A;NEXT A;&(9)=53
80 NT=5
90 CX=-77;CY=-10
100 PRINT "20202050000000000b20000000000",
110 PRINT "b107060b50000000000b200000",
120 CX=-77;CY=-10
130 PRINT "b107060b50000000000b200000",
140 PRINT "b1070b10600000 200002",
150 PRINT "50000000000b20000000000",
160 CX=-77;CY=-10
170 GOSUB 440
180 GOSUB 440
190 PRINT "b1070b10600000 200002",
200 CX=-77;CY=-10
210 PRINT "300000000300b100700600500",
220 PRINT "506070600300+400000200002",
230 PRINT "300000000300b100700600500",
240 CX=-77;CY=-10
250 PRINT "b200000600000000000200002",
260 PRINT "300000000300b100700600500",
270 PRINT "506070600300+400 b20000b2",
280 CX=-77;CY=-10
290 PRINT "b50000b4-b30000b2b10000-7600005",
300 PRINT "b200000000000000000202020",
310 CX=-77;CY=-10
320 PRINT "50000000000b20000000000",
330 GOSUB 440
340 GOSUB 440
350 CX=-77;CY=-10
360 PRINT "b1070b10600000000000200002",
370 PRINT "50000000000b20000000000",
380 GOSUB 440
390 CX=-77;CY=-10;FC=5
400 PRINT "b50b40-b30-b70000000000b600000",
410 PRINT "b500 5050500000 ",
420 CLEAR ;FC=0;BC=251;&(10)=180
430 RETURN
440 PRINT "b107060b50000000000b200000",;RETURN

```



OTHELLO  
D. Brammer

```
1 .
2 .
5 .
10 BC=177;FC=173
20 :RETURN ;NT=0;CLEAR ;C=1
30 PRINT " ***** OTHELLO *****
40 PRINT
50 PRINT "THE OBJECT IS TO SURROUND
60 PRINT "OTHER PLAYER'S SQUARE(S)
70 PRINT "ON 2 OPPOSITE SIDES OR      CORNERS
80 PRINT
90 PRINT "HOW MANY PLAYERS ?
100 INPUT "(1 OR 2)"D
110 L=0;S=0;Z=0;CLEAR
120 CY=-7;PRINT "          5          5
130 X=-10;Y=43
140 FOR A=1 TO 8
150 BOX X,Y,11,11,1
160 BOX X,Y,9,9,2
170 X=X+10
180 NEXT A
190 Y=Y-10;X=-10;Z=Z+1;M=1
200 IF Z<9 GOTO 140
210 P=2;X=4;Y=5;GOSUB 430
220 P=1;X=4;Y=4;GOSUB 430
230 P=1;X=5;Y=5;GOSUB 430
240 P=2;X=5;Y=4;GOSUB 430
250 M=0;P=RND (2)
260 CY=43
270 IF D=1 IF P=1 PRINT "MY TURN";PRINT "PLEASE BE";PRINT "PATIENT";GOTO 1000
280 PRINT " DOWN
290 PRINT " THEN
300 PRINT "ACROSS
310 IF L+S>63A=KP;GOTO 20
320 CY=9
330 IF D=1 IF P=1 GOTO 260
340 IF P=2 GOTO 410
350 PRINT "LARGE";PRINT
360 INPUT "D ="Y
370 IF (Y=0)-(Y>8) GOTO 320
380 INPUT "A ="X
390 IF (X=0)-(X>8) GOTO 320
400 GOTO 430
410 PRINT "SMALL";PRINT
420 GOTO 360
430 X=-20+X*10
440 Y=43-Y*10
450 IF PX(X,Y) GOTO 320
460 IF P=1 BOX X,Y,7,7,1
```

```

470 IF P=2BOX X,Y,3,3,1
480 IF P=1IF C#0L=L+1
490 IF P=2IF C#0S=S+1
500 IF M=1RETURN
510 T=0;W=X;U=Y;Q=0;C=0
520 IF PX(X,Y+10)Y=Y+10;GOTO 730
530 T=20;X=W;Y=U;Q=0
540 IF PX(X+10,Y+10)X=X+10;Y=Y+10;GOTO 730
550 T=40;X=W;Y=U;Q=0
560 IF PX(X+10,Y)X=X+10;GOTO 730
570 T=70;X=W;Y=U;Q=0
580 IF Y<-40GOTO 640
590 IF PX(X+10,Y-10)X=X+10;Y=Y-10;GOTO 730
600 T=90;X=W;Y=U;Q=0
610 IF PX(X,Y-10)Y=Y-10;GOTO 730
620 T=110;X=W;Y=U;Q=0
630 IF PX(X-10,Y-10)X=X-10;Y=Y-10;GOTO 730
640 T=130;X=W;Y=U;Q=0
650 IF PX(X-10,Y)X=X-10;GOTO 730
660 T=150;X=W;Y=U;Q=0
670 IF PX(X-10,Y+10)X=X-10;Y=Y+10;GOTO 730
680 IF C#0BOX W,U,7,7,2;GOTO 320
690 GOSUB 960
700 IF P=1P=2;GOTO 720
710 P=1
720 GOTO 260
730 IF P=2IF PX(X+2,Y+2)Q=Q+1;GOTO 520+T
740 IF P=1IF PX(X+2,Y+2)=0Q=Q+1;GOTO 520+T
750 IF P=2IF PX(X+2,Y+2)=0T=T+20;GOTO 770
760 IF P=1IF PX(X+2,Y+2)T=T+20
770 IF Q#0X=W;Y=U;GOTO 520+T-10
780 T=T-20
790 FOR Z=1TO Q
800 IF T=0Y=Y-10
810 IF T=20X=X-10;Y=Y-10
820 IF T=40X=X-10
830 IF T=70X=X-10;Y=Y+10
840 IF T=90Y=Y+10
850 IF T=110X=X+10;Y=Y+10
860 IF T=130X=X+10
870 IF T=150X=X+10;Y=Y-10
880 BOX X,Y,7,7,2
890 C=1
900 IF P=1BOX X,Y,7,7,1;L=L+1;S=S-1
910 IF P=2BOX X,Y,3,3,1;L=L-1;S=S+1
920 NEXT Z
930 X=W;Y=U;Q=0;Z=0
940 GOSUB 960
950 GOTO 520+T+10
960 CY=-26
970 PRINT "L=",#3,L
980 PRINT "S=",#3,S
990 RETURN
1000 X=RND (8);Y=RND (8)
1010 IF L+S<10X=RND (4)+2;Y=RND (4)+2
1020 GOTO 430
>

```